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Moving Mexico's Higher Education System Forward – Potential and Challenges

by

W.J. Nault Captain, US Navy

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

28 October 2011

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Abstract

While openly acknowledging the urgent need to improve the overall performance of the higher education system (HES) and serve the student population more completely, the Government of Mexico (GOM) has nonetheless failed to follow through on promised reforms. The GOM needs to implement a comprehensive and wide-ranging program of reforms to a number of key elements of the Mexican HES in order to enable graduates to compete more favorably for employment in the Mexican and global labor markets. These proposed reforms would directly address the most pressing problems facing the Mexican HES through increasing university capacity (seats), establishment of a centralized governing body, the implementation of mandatory standardized entrance examinations, improving professionalism of university faculty and increasing GOM efforts toward education research.

"In 1989, after nearly 20 years of unregulated growth, followed by a downfall in funding.....public higher education was implicitly declared by the Mexican government a disaster zone".

Introduction

As Mexico's economic condition has declined and its political climate has undergone near-continuous upheaval during the past decades, the nation of more than 112 million people has seen a similar stagnation in the publicly perceived significance and governmental support of its institutions of higher learning as well as the quality of its graduates as viewed from both within Mexico and internationally. While openly acknowledging the urgent need to improve the overall performance of the higher education system (HES) and serve the student population more completely, the Government of Mexico (GOM) has nonetheless failed to follow through on promised reforms. Mexico now finds itself falling further and further behind the rest of the developed world in student performance and educational quality when assessed against practically any measure.

The GOM needs to implement a comprehensive and wide-ranging program of reforms to a number of key elements of the Mexican HES in order to enable graduates to compete more favorably for employment in the Mexican and global labor markets. These proposed reforms would directly address the most pressing problems facing the Mexican HES, namely through increasing university capacity (seats), establishment of a centralized governing body, the implementation of mandatory standardized entrance examinations, improving professionalism of university faculty and increasing GOM efforts toward education research.

Discussion

Any nation's HES should be considered a matter of national pride as well as an internal barometer for measuring the success of its young people. In fact, it could be argued that measuring the success of a nations college graduates could presage the future economic well being and overall standard of living for the country as a whole. What could be more important to any nation's future than ensuring its young people are competitively educated and prepared to compete in today's technologically advanced workplace? When viewed in this context, Mexico requires significant reforms in its HES to bring in into line with even its South American neighbors, not to mention other fully developed countries around the world.

Lacking a centralized organization empowered to regulate and enforce change, the Mexican HES is adrift in a sea of daunting challenges, a number of which will be outlined below. A renewed dedication in terms of increased funding and a significant degree of institutional patience will be required on the part of the Mexican people and the GOM itself in order to realize desired improvement in the HES. Public pressure for these changes has not always existed but seems to be growing as the population begins to realize that their domestic economic struggles can be tied directly to the ability of their college graduates to raise the internal level of economic performance in Mexico's stagnant industrial complex.

That being said, there are significant cultural and historical barriers to enacting widespread improvements in the Mexican HES. The Mexican populace generally possesses a deeply embedded cultural aversion to self-assessment, especially when it comes to education. "The Mexican system of higher education, which has developed in the absence of

any real assessment culture, finds great difficulty in promoting genuine evaluation procedures and in avoiding a 'culture of compliance' and the consequent bureaucratic games." This overarching cultural characteristic informs any policies that the GOM may desire to institute. Engaging in meaningful progress for the HES would therefore imply getting past this cultural and historical indifference toward critical self-assessment.

Additionally, public policy in general and educational policy specifically are seen to be "input" driven with success implied by policy makers on completion of initiation of such programs. Galaz-Fontes describes this phenomenon more succinctly, "...it appears that national public policies and programs once implemented are by definition seen as correct by their creators, who therefore usually expect the higher education community to endorse them." Put plainly, simply taking action or implementing change in the realm of public policy is generally considered to define success of that policy, with little regard given to follow up measures of effectiveness or self-assessment.

As a primarily agrarian society for most of the modern age, Mexico has retained those roots into the post-technological era. What industry Mexico does possess is focused primarily on manufacturing and "assembly" in the form of the maquiladoras, where imported raw materials or component parts are rapidly assembled and returned (usually to the United States) in the form of basic finished goods such as auto parts, appliances, and other low to medium tech products. Unfortunately, the impact and nature of these traditional economic characteristics leaves Mexico as a backwater of innovation and industrial high-tech production.

Lacking a modern industrial base, the Mexican economy has failed to keep pace with the rest of Latin America, as well as the United States, the Far East and the European Union. As the end of the 20th century neared and most other developed nations were looking for ways to improve upon their already existent high-tech, computer and communications infrastructure and manufacturing base, Mexico's economy stagnated and their ability to move forward into a modern economy faltered. As Mexico's economy and average standard of living suffered, so did the ability of the GOM to invest in its most precious and blooming resource - its young university students.

Structure and Governance

The Mexican public HES is organized along a tiered system representing increased "academic complexity" consisting of six distinct levels of education as students move up the academic ladder. These tiers are: technical schools, bachelor's programs, masters programs, doctoral programs, and masters/ doctoral combined. ⁴ Taking all these types of advanced education into account, Mexico has more than 660 public universities spread throughout the 31 states that make up the country. ⁵

The Mexican public HES is nominally administered from Mexico City by the Secretaria de Educacion (SEP) and while the SEP provides the majority of the overall funding to the individual states for the numerous universities around the country, they in fact exercise very little control over the curriculum, faculty or individual budgets. Instead of attempting to regain a measure of control over the HES in the past many years, the SEP has, in fact, purposefully removed itself from these assigned oversight responsibilities as the number of institutions has increased. Rollin Kent, in a superb overview and critique of the Mexican HES has remarked: "These institutions... are for the most part legally autonomous

and they make their own decisions with regard to personnel, curriculum and research, although they are supported by public funds."⁷

As the Mexican HES continues to face challenge on almost every front, the area of centralized control and governance is clearly an area ripe for improvement and reform and, if properly empowered, would help to enable the accomplishment of less wide-ranging but important reforms. Throughout each of the issues discussed above and below, the overarching theme that emerges is that of a lack of control over the HES in any kind of organized or authoritative fashion. Mexico urgently needs to adopt a unified public HES agency (that includes all tiers of education) resembling what you would find in a larger state school system in America (California, Texas, Florida, etc.).

In various journals and literature, there is near universal agreement that some form of a centralized federal governing body needs to be established. This federal agency would be empowered to regulate and dictate requirements to the rest of the system. Jesus Galaz-Fontes summarizes the general sentiment on this subject quite well: "...the challenge is to replace a central structure with a new federal structure that regulates basic aspects of the system but at the same time leaves wide spaces for the initiative and creativity of the states..." The absence of any such system or mechanism is glaringly obvious.

When we examine the institutions themselves, the dual issues of enrollment and graduation are serious problems that need to be addressed not only in the universities themselves, but also at the elementary and secondary school levels. For the purposes of this paper, I will restrict my comments to the challenges facing the Mexican HES. At a fundamental level, the Mexican HES is plagued by two overarching problems in terms of

student input and throughput: capacity and access.⁹ I will briefly discuss each as well as suggest some possible solutions.

Capacity and Admittance

The term "capacity" in use here refers to the ability of the educational system to absorb the number of students being introduced into the system. In other words, capacity refers to the number of seats available. Of importance, an excess or shortage of "capacity" has no necessarily direct correlation to the quality of education being delivered.

Defining capacity as the maximum production of a school or the education system at a point in time raises the question "what does the system produce?" The conventional wisdom is that the output of the system should be measured in terms of student achievement. Focus on results is one of the mantras of reform. ¹⁰

As economic and political reforms began to improve the overall situation in Mexico during the 60's and 70's for the normal Mexican citizen, the demand for greater access to higher education was not far behind. Imbued with a new sense of freedom and democratic spirit the Mexican people had started to view access to higher education as something akin to a "right to a public service." The burgeoning middle class could now see that there were chances for their children to compete for better jobs in Mexico and abroad and consequently emerge from the decades long cycle of poverty that had gripped Mexico under authoritarian rule. Reacting to the pressure of increasing public scrutiny and demonstrating a zeal unhindered by rationality or a plan, "...the higher education system responded to the long demand cycle of the 1970's by literally opening its doors." This was the beginning of the open access policy that endures to the present day.

The only hard requirement to attend college in Mexico is to simply graduate from the 12th grade and apply to the public institution of one's choice. During this time of increased

pressure to open more schools, the SEP and GOM were completely focused on "production" in response to the demands of the general populace who saw higher education as a "must have" for all children. The sudden influx of students over a short period of time was met with uncontrolled growth in terms of the number of institutions opened; institutions that lacked any meaningful criteria for entrance or qualification:

Since neither government policy nor the universities themselves created an examination system or any other selection mechanism, regulation of student enrollments was left to the expansion rates of the lower echelons of the schooling system where selection occurs more for social or economic reasons than for academic reasons.¹³

This sudden expansion in the availability of higher education has led to an unrestrained and largely uncontrolled system where the individual universities play by their own rules and have minimal reporting requirements or responsibility to the federal authorities who continue to function as their centralized funding source.¹⁴

Some forty years later, the result of these open door policies sees the Mexican HES suffering from stagnation and enormous waste. Even considering the increased number of institutions that have emerged in the last 20-30 years, the system simply does not have the capacity to enroll all "eligible" nationwide graduates from the 12th grade. Morever, having no formal national entrance examination, the individual universities have no way of determining individual student proficiency or qualification for any particular field of study. With a suffering labor market, young people are delaying unemployment by seeking low cost and open access advanced education, many with limited aptitude for such learning.

The hard truth is that even with the recent expansion in the number of institutions in the Mexican HES, there is simply not sufficient capacity for a "come one, come all" approach. In fact, Marion Loyd, noted expert on Mexican education, remarked in a recent

column in the Chronicle of Higher Education that, "the National Autonomous University (UNAM) rejected a record 92 percent of applicants in February (2010)." ¹⁶ As Mexico's largest public university, UNAM provides a good barometer of the availability of basic level baccalaureate education for the masses. As the population increases along with the demand for seats, the GOM must develop a means of determining which students actually deserve to occupy the seats that do exist.

This problem of open access clearly calls for a set of reforms, not the least of which is the immediate enactment of a mandatory nationalized entrance examination system that the individual universities can use to gauge student qualifications for specific programs and begin to craft a plan to adapt curricula for the skills and specialties required in the 21st century. The SEP/ GOM is currently considering instituting such a regime¹⁷, but efforts such as these in the past have been only voluntary out of deference to individual state autonomy.¹⁸

While instituting some measure of quality control through an entrance examination for entering freshman would seem to be in order, increasing the overall capacity of the Mexican HES will remain a priority moving forward. Even with an entrance examination serving as a filtering function, as noted above, the Mexican HES is woefully over-stretched in terms of available seats and its ability to absorb a growing population of college bound students. Jose Narro Robles, UNAM's Rector, in a recent interview with Ms. Loyd, expands on this point:

...the government should work to achieve a 50-percent gross enrollment ratio by 2018 to meet the demand for college degrees in Mexico. That would require creating more than a million new places at universities over the next eight years. ¹⁹

This increase in overall seats will of course not come free, and the long-term dedication of funding for these dramatic increases will not come without debate and disagreement over the allocation of precious fiscal resources.

Access and Student Characteristics

When you take into account the unrestricted acceptance policy for the Mexican HES outlined above, it is not surprising that the overall graduation rate from Mexico's universities is extremely low. This policy of open access, meant to be inclusive, leads unfortunately to an enormous amount of inefficiency and waste. This waste is witnessed by university staffs and faculty expending precious time and resources on students that will never complete their degree and should truly not even be in college except for the inertia pushing them forward from high school. Statistics from 1990 (the most recent year that numbers are available) showed that of students entering a four-year bachelor's program, only 33.7% actually complete their degree. Simon Schwartzman summarizes this challenge in his work, "Higher Education and the Demands of the New Economy in Latin America," when he states:

However, it seems clear that the main problems Mexican higher education faces are not related to limited access, but to the enormous waste, and related costs, associated with the large number of students who fill the institutions' classrooms and never get their degrees.²¹

In terms of access for a wide range of students across Mexico, there are similarly daunting challenges. As Mexico stuggles to emerge from the shadow of its agrarian past, there is an acknowledgement on the part of the Mexican government that there needs to be a concerted effort put into increasing the number of lower income students accessed into the

Mexican HES. Such an acknowledgemt has not, however, led to marked increases in the numbers of lower income students. Current GOM initiatives (examined briefly below) are clearly not having the intended effect when the "poorest 10 percent of Mexicans...account for just 4% of the country's 2.8 million college students." Again, as a relatively "new" democracy, improving the number of lower income students attending university needs to be a barometer for the GOM as it attempts to make higher education accessible to its most economically oppressed citizens.

Another important nuance to be understood in regards to the Mexican HES is the quality and focus of the subject matter being taught in the universities. While the Mexican universities offer an array of baccalaureate degrees, the job market internally in Mexico is limited for high-tech graduates and thus there are limited seats for these students.²² The majority of graduates, regardless of chosen major, end up working in the services sector, in the education field or employed by the government.²³ This challenge extends well into the post-graduate arena where Mexico struggles as well.

Taking the area of education specialized Ph. D's as a representative example of these shortcomings, a recent Rand report noted: "On a per capita basis, Mexico graduated 1.4 education Ph. D's per every million inhabitants, while the United States graduated about 22. In addition, very few graduate programs in education in Mexico are considered to be high quality."²⁴ This troubling statistic not only points out the paucity of advanced degrees being offered in Mexico but sldo illuminates the lack of expertise in the very subject of this paper, namely, advanced education.

Faculty

Directly informing the quality and nature of the education and curriculum offered in the Mexican HES, is the ability of the current faculty to respond to the evolving needs of the growing number of students in their care. It must be noted that the faculty throughout the system are enormously challenged and stressed for resources and time. Actual contact hours with students routinely competes with an array of non-teaching related administrative duties that distract from faculty's primary role of teaching students.²⁵

As a result of the rapid expansion during the 80's, the SEP was forced to bring on a large number of new faculty to meet the new demand. The increase in the numbers of faculty coupled with a faltering economy led to faculty salaries being slashed to 40% of their previous levels. Not surprisingly, the candidates for these new positions were far from ideal, many lacking proper qualifications and experience in the field in which they were teaching:

This enormous expansion of the academic profession occurred in the absence of a diverse and efficient system of post-graduate studies that would have been needed to meet this demand with a reasonable level of academic quality....Thus, the academic profession as it exists today was formed on the basis of massive non-competitive hiring of young people with little postgraduate training to academic positions which are for the most part teaching jobs.²⁷

This unfortunate phenomenon obviously has had a negative impact on the quality of the education received and the overall experience for the students. This corrosive cycle of poor academic rigor coupled with poor instruction, leading to more of the same as generations pass, must be broken. In this light, Galaz-Fontes has called for what he terms a "reconfiguration of the academic profession." He sees an urgent requirement for the professionalization and formal organization of the faculty as well as incentivization by the

GOM in the form of increased salaries.²⁹ Many of the current faculty are approaching retirement³⁰ and recruiting qualified replacements will be a tall task in the current fiscally constrained environment. That being said, there is simply no more single important reform that can be undertaken than to infuse the Mexican HES faculty with a renewed sense of professionalism coupled with public and political support to the critical service they provide for the nation and their students.

Education Research

A troubling symptom as well as a likely cause of the current woeful state of affairs in the Mexican HES is a complete lack of any ongoing research into education and education related policies. The Rand report puts this rather bluntly:

Education research and evaluation in Mexico is scant. The Mexican education system lacks transparency and has no tradition of supporting objective evaluations...large scale data are difficult to access which has limited the development of quantitative research in the country.³¹

This lack of a robust educational research capacity negatively impacts any meaningful efforts at reform on the part of the SEP or GOM writ large. At the end of the day, neither the SEP nor the GOM have a clear picture of what is actually transpiring in the system as a whole. There are precious few historical databases from which to assess efficacy of past reforms. Essentially, there are no programs or formal procedures that resemble even a rudimentary form of quality assurance within an already fractured system. As mentioned above, this type of internal self-assessment is simply not engrained in the way of thinking for political or educational leaders in Mexico, and there is no expectation on the part of the population that this type of research and rigor even exist.

Much of the current literature on this subject focus on this issue as fundamental to moving the HES forward in terms of quality and legitimacy.³² The good news is that this appears to be a self-identified challenge for the GOM, and they have recently attempted to institute some measures of assessment. As Kent blithely puts it, "some institutions seem to make an effort to develop useful evaluation procedures, although in many cases there is a great deal of bureaucratic simulation."³³

Counter-Argument

The GOM would generally acknowledge that many of the issues raised in this paper are indeed true challenges but would counter-argue that much is already being done in an attempt to combat these deeply embedded issues. Given the current fiscal constraints and competing urgent economic priorities, there is only so much that the GOM can do in regards to improving the HES.

In 2001, the SEP instituted the Integral Program for Institional Strenghtening which attempts to tie federal funding to individual institutional performance. This program is designed to provide "additional federal funds to those public HEI's (higher educational institutions) that were willing to carry on strategic planning and evaluation with an emphasis on the improvement of the quality of educational services…"³⁴ This effort has faced resistance due to the lack of any unified agreement on appropriate standards of effectiveness.

The SEP has been relatively successful with another program directed at providing scholarships for lower income students, the National Scholarship Program. This program, targetting lower income and at risk populations, has been credited with increasing retention and graduation rates of students who likely would not have been able to remain in college

until graduation.³⁵ A noble effort, the National Scholarship Program has been well received and at least attempts to speak to the issue of providing access to higher education for the lower rungs of the economic ladder.

Taking these current proposals into account, there remains precious little progress in terms of the fundamental issues plaguing the Mexican HES. The programs noted above only attack the symptoms of the basic issues at the margins. There is much more than can and should be done. At a fundamental level, the GOM must undertake a cultural change in the way higher education is viewed, valued and thought about at every level of Mexican society. Not surprisingly, the general populace seems to be coming to this realization well in advance of the elected officials entrusted to repair this system

Conclusion

As has been outlined, the Mexican HES is faced with an array of challenges, many of which can be solved with some relatively straightforward, if culturally radical, policies. Most importantly, the GOM must immediately appoint an oversight agency for the HES that possesses the fiscal and regulatory authority to dictate nation-wide standards for higher education. The obstacle of local and state resistance to such an agency will serve as the greatest challenge to realizing this important sea change in the way business is done in the Mexican HES.

A national standardized (and mandatory) entrance examination should be immediately instituted for all high school seniors in order to measure individual student readiness for advanced education. This policy will enjoy the additional benefit of informing the secondary school system of its shortcomings in terms of preparing students for college.

This new examination, coupled with a renewed effort at increasing university capacity will start to address the challenge of offering the right students the right education. And lastly in this vein, the GOM needs to continue to target lower income students for scholarships and increased access into the HES.

In conjunction with these largely administrative changes, the GOM/ SEP need to embark upon a reinvigoration of the teaching profession in order to ensure the students are receiving the best possible teaching and curriculum available.

Finally, the GOM needs to take a longer view of educational policies in general and engage outside organizations to embark upon a rigorous, formal and enduring review of educational policies moving forward. This will be the only way that the GOM will truly be able to gauge the effectiveness of any future policies and in turn adjust or change those policies based on objective observation and statistics.

By undertaking the above reforms the GOM will be making a significant and important investment in the long term health and prosperity of its economy, its children and its future.

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